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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,315	03/27/2000	Eiji Ogawa	Q55898	4621-

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06/03/2004

Sughrue Mion Zinn
MacPeak & Seas
2100 Pennsylvania Avenue NW
Washington, DC 20037

EXAMINER

HARTMAN JR, RONALD D

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 06/03/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/536,315

Applicant(s)

OGAWA, EIJI

Examiner

Ronald D Hartman Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the Amendment filed on 3/19/2004.
2. Claims 1-12 and 14-33 are re-presented and claims 34-38 are added.

Response to Arguments

3. Applicant's arguments filed on 3/19/2004 have been fully considered but they are not persuasive for the following reasons:

Applicant has argued via Amendment, See Remarks; page 9, that with respect to claims 1, 3, 14-15 and 18, Jenkins nor Hoebel teaches "a plurality of medical image input devices holding respective histories of evaluation results ..." (emphasis added). The applicant further asserts that Jenkins only discloses copy quality being transmitted to a diagnostic computer (emphasis added). The examiner respectfully disagrees. Since the copy quality is generated, it must be stored before it is transmitted, and this storage, however brief, adequately contemplates the claimed feature wherein "a plurality of medical image input devices holding respective histories of evaluation results ..."

Further applicant also argues, with respect to at least claims 1, 3, 14-15 and 18, that the combination of Jenkins and Hoebel would NOT have been obvious to one of ordinary skill in the art at the time the invention was made and the applicant asserts that the examiner has used impermissible hindsight in combining the references; (See page 10).

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Again, the examiner respectfully disagrees. The two part test for impermissible hindsight is:

- (1) are the references related to the same field of endeavor or analogous art?

Since the Jenkins reference is directed to a photo copy machine and the Hoebel reference is directed to a networked medical diagnostic installation having a central control work station, it would seem that the first part of this test would indicate that both references are not from the same field of endeavor; however, the second part of the test for impermissible hindsight relies on:

- (2) whether it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have considered another field of endeavor in determining patentability.

Both inventions are related towards the remote diagnosis and control of image quality and Hoebel was specifically applied to show that remote control of image quality, taught by Jenkins, is equally applicable in a specific medical imaging environment. Therefore, the examiner respectfully disagrees with the applicant that impermissible hindsight was used in combining the references as both references deal with image quality and the need for proper monitoring and controlling of parameters associated with this quality.

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The applicant further argues that the examiners assertion of inherency, with regards to claims 11 and 16, is incorrect (See pages 10-11). Since the examiner did not actually make this assertion (See page 5 of previous office action; and re-iterated below), a response to this argument is not needed. It is noted that the examiner rejected these claims under 103 as being obvious over Jenkins and never made mention of inherency.

The applicant then argues that the examiner's assertion that the claimed subject matter contained in claims 19-23 "are all believed to be obvious known quantitative measurement means by which images are analyzed to determine deficiencies in the images". To prove the examiners assertion, U.S. Patent No. 5,600,574 is being cited to specifically show these features (e.g. See Figure 4A; elements 411 and 416) to further support the examiners position that these features are "obvious known quantitative measurement means by which images are analyzed ..."

For the applicant's convenience, the previous rejection of claims 1-33 (without claim 13; canceled by applicant) is re-iterated below and newly added claims 34-38 are "newly rejected" below. Therefore, since the applicant's arguments are not considered persuasive, and since newly added claims are newly rejected based on a previously applied art rejection, this action is made FINAL.

Claim Rejections - 35 USC § 103 (maintained)

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-12 and 14-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al., U.S Patent No. 5,365,310, in view of Hoebel et al., U.S Patent No. 5,400,792.

As per claims 1, 3, 5, 7, 14-15 and 18, Jenkins teaches a system comprising:

- a plurality of image input/output devices holding respective histories, of evaluation results, on specified items regarding image quality of individual image input device (e.g. "copy quality defect"; C3 L54-55 and C6 L24-37);
- a control device, which stores all of the histories of said evaluation results regarding the image quality, which respective image input/output devices hold, to control the histories thereof centrally (e.g. Figure 1 element 60); and
- a network onto which said plurality of image input/output devices and said control device are connected (e.g. RIC network; Abstract and C2 L12-60).

In other words, Jenkins teaches a networked system of imaging devices, wherein the imaging devices store data regarding their respective devices image

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quality, and the devices communicate with a control device, which also stores the data, so that the image quality of the devices can be controlled using the data.

9. As per claims 1-4, 14-15 and 18, Jenkins does not specifically teach the image input devices specifically being medical image input devices or the imaging device being at least one medical input image device and at least one medical image output device.

In other words, although Jenkins discloses the use of an image quality control system in a networked imaging system environment, Jenkins does not specifically disclose the use of a networked medical imaging system environment for controlling image quality, using a control device.

Hoebel teaches a networked medical diagnostic installation wherein an apparatus, such as an angiography apparatus, may be controlled from a central work station (Figure 1, elements "network", "central work station" and "angiography apparatus"). Hoebel teaches that the angiography apparatus or image input apparatus also possessing the functionality of an image output apparatus by incorporating a display device (Figure 1 element 11). Hoebel also teaches that image quality may be coordinated at one central location (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed for Hoebel's medical diagnostic apparatus to be incorporated into the teachings of Jenkins since it would allow for a more effective way of controlling image quality by providing for a central control means to automatically monitor and control aspects of the imaging system or apparatus

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so that an operator or service technician need not be located at the facility where the image apparatus is physically located.

6. As per claims 6 and 8, Jenkins teaches a soft copy display device (e.g. Figure 1 element 11).

7. As per claims 9-10 and 17, Jenkins teaches the system further comprising a portable testing unit for performing an image quality check (e.g. C3 1-3-8 and C8 L-3-10).

8. As per claims 11-12 and 16, although Jenkins does not specifically teach features whereby one of the image input devices is used as the central control device, or the image devices immediately outputting history results of evaluation results after determining the history, they are both features that are obvious for at least the following reasons.

Firstly, the use of computer networks is well known for providing computing devices the ability to communicate with another, and since allowing one of the imaging devices to also function as the control device would form a more simple control system but eliminating the need for use of an external communication network (e.g. telephone, cable, etc.) which may suffer from disruptions that cannot be alleviated internally by an operator of the quality control system. If one of the imaging devices co-functioned as the control device this type of possible disruption would be conveniently and cheaply avoided.

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Secondly, as previously discussed with regards to claims 14 and 18 above, since providing the most relevant data, regarding image quality, would obviously form a more effective means of providing overall image quality control, since decisions are made from data pertaining to the images, obviously the most relevant information about these images is necessary in order to effectively control the image quality of the overall imaging system.

Therefore, for at least the aforementioned reasons, the features or limitations of pending claims 11-12 and 16 would obviously be incorporated into Jenkins, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

9. As per claims 14 and 18, automatically outputting information related to image quality from one of the devices is a feature that would have been obvious to one of ordinary skill in the art since providing the central control means with the most up date information, from which control decisions are made, would result in a more effective quality control system. Therefore, the incorporation of this feature into Jenkins combined system would have been obvious to one of ordinary skill in the art at the time the invention was made.

10. As per claims 19-23, although Jenkins combined system does not specifically teach the specific image qualities claimed by way of pending claims 19-23, they are all believed to be obvious known quantitative measurement means by which images are analyzed to determine deficiencies in the images.

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Therefore, since Jenkins is directed towards a system whereby image quality can be managed from a host computer, or via a portable computing means, and since all of the claimed feature of pending claims 19-23 present known qualitative means for image analysis, the incorporation of these features into Jenkins would have been obvious to one of ordinary skill in the art at the time the invention was made since they are all features that would aid in the determination of corrective measures to be implemented on the imaging devices.

11. As per claims 24-25 and 31-33, although Jenkins combined system teaches the use of an angiography apparatus or imaging device, Jenkins combined system does not specifically teach the system being applied to specifically to a computerized radiography (CR) imaging system or other known x-ray imaging system. However, since Jenkins combined system using an angiography imaging apparatus, a known x-ray medical imaging apparatus, the use of a computerized radiography imaging system is believed to be an obvious variation of Jenkins combined system. That is, since both imaging systems serve the same purpose, that is, taking x-rays and digitally converting these images so that determinations may be made, these determinations affecting decisions that effectuate subsequent operations of the imaging system, their incorporation into one another would be obvious since they are, in essence, from analogous art and the CR feature would merely provide other well known imaging systems that would provide adequate diagnostic capabilities (x-rays) for implementing Jenkins combined system. Therefore, for at least the following aforementioned reasons,

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the incorporation of this feature into Jenkins combined system would have been obvious tone of ordinary skill in the art at the time the invention was made.

12. As per claims 26-28, the image input devices originates an image from a source being imaged using energy conversion to an electrical signal is inherent to the teachings of Jenkins and his disclosed use of digital imaging systems since digital image signals (electrical signals) are inherently formed using any digital reprographic image device.

13. As per claims 29-30, Jenkins teaches the imaging devices having a memory and the automatic output of image quality information (C3 L54-55 and C8 L42-45).

Claim Rejections - 35 USC § 103 (newly rejected)

14. Newly added claims 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al., U.S Patent No. 5,365,310, in view of Hoebe et al., U.S Patent No. 5,400,792, as applied to claims 1-3 15 and 18, from above.

As per claims 34-37, histories being multiple data entries over time, is a feature that would have been obvious to one of ordinary skill in the art since, obviously, having only one data entry over time would not produce any tangible historical results, and therefore, multiple data entries would have been obvious to one of ordinary skill in the art at the time the invention was made.

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As per claim 38, an output device storing quality results is adequately taught by Jenkins in view of Hoebel. That is, since the combined system of Jenkins and Hoebel teaches a remote diagnosis and control means for networked medical imaging devices, the storing of results is obvious for at least the same reasons as set forth above with respect to at least claim 1, and therefore its inclusion would have been obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

15. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone

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number is 703-308-7001. The examiner can normally be reached on Mon. - Fri.,
11:30 am - 8:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The
fax phone number for the organization where this application or proceeding is
assigned is 703-872-9306.

Information regarding the status of an application may be obtained from
the Patent Application Information Retrieval (PAIR) system. Status information
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free).

Ronald D Hartman Jr.
Examiner
Art Unit 2121



Anthony Knight
Supervisory Patent Examiner
Group 3600